Aboriginal Affairs and Northern Development Canada
Affaires autochtones et Développement du Nord Canada

NWT CIMP

Northwest Territories Cumulative Impact Monitoring Program

Canada

Northwest Territories Cumulative Impact Monitoring Program (CIMP)

Strategic Plan to 2015

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Introduction

The Northwest Territories Cumulative Impact Monitoring Program (CIMP) is an environmental program that aims to support, facilitate and coordinate the collection, analysis, management and dissemination of information regarding the long-term state and health of the environment in the Northwest Territories, with the goal of supporting better resource management decision-making and sustainable development. A similar but independent program also exists in Nunavut called the Nunavut General Monitoring Plan (NGMP).

A coordinated, effective and rigorous environmental monitoring regime is critical for sustainable development in the Northwest Territories in order to:

- Understand and respond to changing environmental conditions at local, regional and territorial scales;
- Understand, assess and mitigate the potential cumulative impacts of resource development activities on the environment;
- Improve the effectiveness and accountability of monitoring and resource management governance, policy development and land-use decision-making; and,
- Improve the coordination, alignment and integration of environmental research and monitoring information.

The development of a robust monitoring regime will provide significant benefits to northern communities, industry, planners, government and decision-makers; however, achieving it will require significant changes in how all of these parties prioritize monitoring and collaborate in the collection, analysis and dissemination of information. The CIMP will play a key role in championing and facilitating these activities.

This document presents the Strategic Plan for the CIMP that outlines the program's mandate, vision, governance, approach, goals, and milestones until 2015. A compatible plan has also been developed for NGMP. This plan will serve as key foundation for outreach and engagement with external partners, stakeholders and interested parties in the development of specific program elements, work plans and resources. The CIMP welcomes interested parties and stakeholders to join them in this important endeavour.

For more information, please contact:

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Mandate, Vision, and Outcomes

MANDATE

Environmental monitoring is a constitutional and statutory requirement in the Northwest Territories contained in the Sahtu, Gwich'in, and Tlicho land claim agreements and in Part 6 of the Mackenzie Valley Resource Management Act (MVRMA). Section 146 of the MVRMA indicates that:

> *The responsible authority shall, subject to the regulations, analyze data collected by it, scientific data, traditional knowledge and other pertinent information for the purpose of monitoring the cumulative impact on the environment of concurrent and sequential uses of land and water and deposits of waste in the Mackenzie Valley.*

Although the MVRMA and its provisions relating to cumulative impact monitoring and environmental auditing does not apply to the Inuvialuit Settlement Region, AANDC and the Inuvialuit Game Council, with the support of the Working Group, agreed in April 2002 that the Inuvialuit Settlement Region would be included in the implementation plans for the NWT CIMP and Audit. A Memorandum of Understanding to this effect was signed in November 2003.

The Federal government has a clear mandate and responsibility for environmental monitoring in the NWT and announced funding for the CIMP in Budget 2010. AANDC is the lead Federal department for implementing the CIMP through its NWT regional office, with support from headquarters.

VISION

The CIMP supports sustainable development in the NWT and AANDC's long-term strategic outcome: "*Self-reliance, prosperity and well-being for the people and communities of the North*". Its program-specific vision is "*to watch and understand the land and use it respectfully forever*".

OUTCOMES

The CIMP has identified two key outcomes that are central to achieving its mandate and vision:

(i) *standardized and consolidated environmental monitoring data and information*, and
(ii) *an accessible monitoring knowledge base that informs and supports decision-making.*

Context, Approach and Activities

CONTEXT

The need for cumulative impact monitoring is heightened in the context of rapidly increasing development pressures throughout the Northwest Territories. In particular, interest in mining has focused on diamonds in the eastern regions of the NWT, while oil and gas activities, including a proposed gas pipeline, are dominant in the west. As these pressures intensify, they are likely to contribute to cumulative environmental impacts. This reinforces the need to understand environmental baseline conditions against which to predict and assess change, how conditions are changing, the nature of the changes and why.

There are three general types of environmental monitoring information in the NWT:[1]

1. **Baseline Monitoring:** Monitoring to determine the state of the environment and its natural variability. This monitoring is used to establish background or "baseline" levels of physical and chemical parameters against which environmental changes can be measured. This can be accomplished by long-term and/or survey monitoring at locations that are least developed or ideally "non-impacted" by human disturbance. This monitoring is often conducted by governments using both scientific and traditional knowledge.

2. **Effects Monitoring:** Monitoring to determine changes to the status and trend of specific environmental attributes or indicators (e.g. caribou). Effects monitoring may be project-based or cumulative and focuses on changes to the environment resulting from human activities. Effects monitoring information is often conducted by governments or industry proponents and informed by traditional knowledge holders.

3. **Compliance Monitoring:** Monitoring to determine whether a facility/operation is in compliance with licensing and permitting conditions. Compliance monitoring is used to detect and correct violations and provide evidence to support enforcement actions. Regulations and conditions are informed by what is known about the environment from long-term and effects monitoring. This monitoring is generally prescribed by regulators and delivered by proponents.

Monitoring in the NWT is faced with a number of challenges in terms of the effective collection, analysis and sharing of environmental monitoring information across all three types of monitoring. Significant information gaps related to the state and health of the NWT environments remain and decision-makers and residents have limited access to the information they need for integrated resource management.

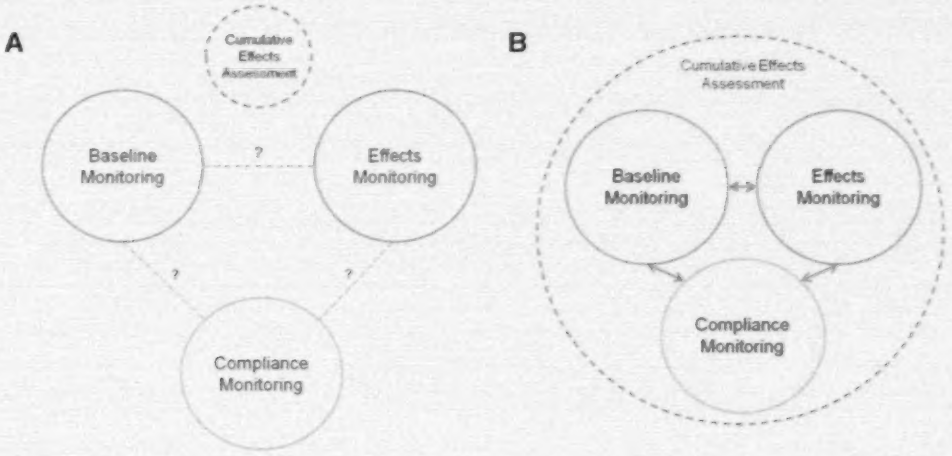
This current state is illustrated in Figure 1A below. The three types of monitoring are depicted as operating in independent spheres with limited interaction among them. Cumulative effects assessment is not currently integrated into most monitoring efforts and is therefore positioned apart from the three spheres. The lack of compatible protocols, data and information makes data integration and analysis

[1] Descriptions are adapted from the Alberta Environmental Monitoring Panel's 2011 report "A World Class Environmental Monitoring, Evaluation and Reporting System for Alberta".

challenging and as a result it is difficult to look beyond project-specific impacts to assess the cumulative impacts of development.

One of CIMP's key goals is to develop and maintain a network of collaborators who will work to coordinate and integrate monitoring efforts. This network will develop and implement shared protocols for designing monitoring programs, collecting and sharing data, conducting analyses and reporting on their findings, the state of the environment, and the cumulative impacts of development. This vision is depicted graphically in Figure 1B below. The three spheres are more closely aligned and connected, and the assessment of cumulative effects is enabled by more integrated and compatible data and information.

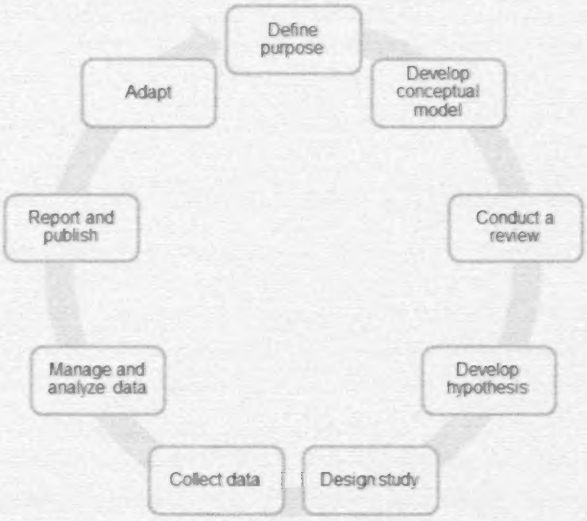
Figure 1: Representation of Current (A) and Desired (B) Monitoring Efforts



THE PATHWAYS APPROACH

The CIMP proposes the Pathways Approach as a common platform for developing monitoring programs and protocols for baseline, effects and compliance monitoring in the NWT. The approach is designed to bring coherence and consistency to monitoring initiatives and to ensure involvement of northerners and decision-makers.

Figure 2: The Pathways Approach



The Pathways Approach is an adaptive monitoring approach. Adaptive monitoring is structured to test a question, whose answer is required to improve decision-making and is adapted and refocused over time. Figure 2 depicts the key steps of the approach from defining the monitoring purpose and developing the conceptual model through to reporting and adapting the approach based on the key findings.

ACTIVITIES

To achieve its mandate and vision, the CIMP will be active in four main activity areas:

1. **Facilitating governance and partnerships**

In this capacity, the program will guide and support partnerships that involve collaboration among diverse partners including communities, government, claimant groups, industry, co-management boards and various experts and advisors to align, coordinate and integrate environmental monitoring objectives and activities. This includes establishing governance structures and formalizing collaborative activities through negotiating agreements, such as Memorandums of Understanding (MOUs), with key decision-makers and information providers.

The CIMP will also convene stakeholders and decision-makers from all three spheres of monitoring to validate its Valued Component (VC) framework and establish a set of shared questions and priorities for cumulative effects monitoring and related VC areas. This will be accomplished through a decision-makers' workshop as well as regular CIMP governance activities. Priorities will be captured in a published Monitoring Blueprint that will guide CIMP's activities and funding. Through this process, monitoring priorities will be defined by decision-makers, with monitoring being designed and delivered by experts and community-based organizations.

2. **Supporting, facilitating and coordinating the collection, analysis and synthesis of information regarding the long-term state and health of the ecosystem and socio-economic environment in the NWT**

This involves working with diverse information providers to establish baseline information and adopt shared monitoring protocols. The CIMP will convene information providers and subject matter experts to identify and/or develop shared monitoring protocols for i) the monitoring of cumulative effects related to priority questions, and ii) the long-term monitoring of priority VC areas to improve data quality and compatibility and to support cumulative effects assessment. This process will integrate scientific, traditional knowledge and community-based monitoring approaches. The core of the process will be a series of workshops focused on specific questions and VC areas.

For cumulative effects questions, the CIMP will play a significant leadership role in both guiding and funding research efforts. For long-term monitoring activities, the CIMP will co-develop and facilitate a process to come to agreement on a conceptual model and compatible monitoring methodologies for each priority VC.

The CIMP will also provide targeted funding for cumulative effects data collection and analysis and for related training and capacity building for community-based monitoring activities. This will be delivered through an annual request for proposals (RFP) process based on the Monitoring Blueprint priorities.

3. **Developing and maintaining an information management system**

The CIMP will work to improve data compatibility, accessibility and analysis by developing and maintaining a centralized, online information management system (IMS). The CIMP will work with its collaborators to consolidate information and analysis from diverse sources and make it accessible through the IMS.

4. **Reporting and communicating**

This involves disseminating information to decision-makers and the general public by developing and distributing reports and publications. The CIMP will produce a comprehensive State of the Environment report every five years, as well as an annual Summary of Knowledge report. These reports will address environmental changes and trends as well as cumulative effects. The CIMP will also engage with researchers and decision-makers to ensure that monitoring information is available to inform decision-making.

Goals, Objectives and Milestones

GOALS

The table below presents the CIMP's five-year program goals by activity area. These were jointly developed with NGMP and reflect the high degree of collaboration between the two programs.

Table 1: Five-Year Program Goals

Activity Area	Five-Year Goals
Facilitate governance and partnerships	1. Governance and management structures are established and functioning effectively. 2. Monitoring networks are formally established and functioning effectively. 3. Key monitoring questions and priorities are identified and adopted.
Support the collection, analysis and synthesis of information	4. Protocols for monitoring and analyzing data have been developed and tested for key priorities, questions and Valued Component areas. 5. Baseline information has been established for all priority Valued Component areas. 6. Funding is distributed annually to priority monitoring initiatives that build community capacity and fill key knowledge gaps.
Develop and maintain an information management system	7. Environmental monitoring information is centrally accessible online through an information management system.
Report and communicate	8. Key information on environmental monitoring is reported annually and contributes to the quality and timeliness of management decisions.

OBJECTIVES & MILESTONES

Goal 1: Governance and management structures are established and functioning effectively

Key Objectives:

- Update the terms of reference and membership of program governance structures
- Staff and operate the CIMP Secretariat
- Develop a performance measurement and evaluation system for implementation of the program
- Establish an internal federal advisory committee
- Develop and establish annual and five-year meeting and planning cycles

Key Milestones:

2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
• Hire the secretariat and monitoring technical staff	• Complete ToR • Develop and implement strategic and work plans • Monitor and report on program performance • Establish key advisory groups to support program planning, funding allocations, monitoring design and reporting	• Quarterly meetings of Working Group • Develop and implement strategic and work plans • Continue to establish key advisory groups	• Quarterly meetings of Working Group • Develop and implement strategic and work plans • Develop MCs, TB and other program development submissions • Independent program evaluation	• Quarterly meetings of Working Group • Develop and implement strategic and work plans

Goal 2: Monitoring networks are formally established and functioning effectively

Key Objectives:

- Develop and implement stakeholder communications and engagement plans
- Develop and establish Memorandums of Understanding (MOUs) to solidify partnerships (to outline agreed approaches for establishing protocols, determining monitoring priorities, sharing information and reporting

Key Milestones:

2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
• Develop draft communication plan • Release NWT Audit and Status of the Environment Report • Engagement & outreach activities (presentation & consultation)	• Develop plan • Develop materials and activities that will provide information on the CIMP, and provide opportunities for engagement on key tasks and activities • Develop MOU templates	• Revise and update materials as needed • Establish MOUs with key partners • Assess partnership arrangements and adapt as needed	• Continue to review and update materials as needed • Continue to establish MOUs with key partners • Continue to assess and adapt partnership arrangements	• Continue to review and update materials as needed • Complete establishment of MOUs with all key partners • Review partnership arrangements and develop plan for next five-year cycle

Goal 3: Key monitoring questions and priorities are identified and adopted

Key Objectives:

- Conduct annual decision-makers needs assessment and workshop to identify priorities and questions
- In collaboration with the NGMP, develop and update a Monitoring Blueprint that articulates a set of five-year priorities and questions to guide the CIMP's activities and distribution of funding

Key Milestones:

2010-2011	2011-2012	2012-2013	2013-2014	2014-2015

• Modernize & release request for proposal process (RFP)	• Develop process for ongoing assessment of decision-maker needs • Organize and deliver decision-maker workshop	• Develop Monitoring Blueprint • Develop specific monitoring plans to achieve priorities	• Update Monitoring Blueprint on an annual basis • Develop specific monitoring plans to achieve priorities	• Update Monitoring Blueprint on an annual basis • Develop specific monitoring plans to achieve priorities • Develop plan for decision-maker engagement in next Five-Year cycle

Goal 4: Protocols for monitoring and analyzing data have been developed and tested for key priorities, questions and Valued Component (VC) areas

Key Objectives:

- Engage collaborators (e.g. through workshops, meetings, events) to develop and/or adopt shared monitoring protocols for priority questions and VC areas
- Support the development and implementation of monitoring plans and guidelines

Key Milestones:

2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
• RFP process focus on development of protocols • Consult on the need for common protocols	• Finalize joint methodology on protocol development; develop communication plan around monitoring protocols • Design and deliver monitoring workshops and training to partners and regulators (ongoing)	• Initiate development of protocols for priority VCs and questions • Design and deliver monitoring workshops and training to partners and regulators • Assist in implementing monitoring and capacity-building activities delivered by partners (ongoing)	• Continue to develop protocols • Design and deliver monitoring workshops and training to partners and regulators • Assist in implementing monitoring and capacity-building activities delivered by partners	• Adopt CIMP protocols for all VCs • Design and deliver monitoring workshops and training to partners and regulators • Assist in implementing monitoring and capacity-building activities delivered by partners

Goal 5: Baseline information has been established for all priority Valued Component areas

Key Objectives:

- Coordinate design and implementation of monitoring programs to meet identified priorities
- Consolidate, analyze and synthesize information on environmental trends and cumulative impacts from diverse sources
- Communicate monitoring results

Key Milestones:

2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
• Identify and initiate engagement with key collaborators • Production of 2010	• Assemble partners and design the monitoring plans, using the pathways approach*	• Assemble partners and design the monitoring plans, using the pathways	• Assemble partners and design the monitoring plans, using the pathways	• Assemble partners and design the monitoring plans, using the pathways

NWT Environmental Audit & Status of Environment Report	• Identify and initiate engagement with key collaborators • Organize and deliver CIMP workshop • Publish information via IM/IT (i.e., Discovery Portal) – see Goal 8	approach • Engage with key collaborators • Organize and deliver CIMP workshop • Publish information via IM/IT (i.e., Discovery Portal) – see goal 8	approach: • Engage with key collaborators • Organize and deliver CIMP workshop • Publish information via IM/IT (i.e., Discovery Portal) – see goal 8	approach: • Engage with key collaborators • Organize and deliver CIMP workshop • Publish information via IM/IT (i.e., Discovery Portal) – see goal 8

* Pathways approach: Define the purpose, Develop the conceptual model, Conduct a review of known information, Develop the hypothesis, Design the study, Collect data, Manage and analyze data, Report and publish findings, Adapt

Goal 6: Funding is distributed annually to priority monitoring initiatives that build community capacity and fill key knowledge gaps

Key Objectives:

- Direct, manage and administer an annual Request for Proposals (RFP) process to allocate funds to support monitoring activities, develop community capacity and address knowledge gaps

Key Milestones:

2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
• Fund monitoring & research projects through RFP process	• Develop priorities and allocate funding to projects that will address knowledge gaps, through a competitive RFP process (ongoing)	• Develop priorities and allocate funding to projects that will address knowledge gaps, through a competitive RFP process	• Develop priorities and allocate funding to projects that will address knowledge gaps, through a competitive RFP process	• Develop priorities and allocate funding to projects that will address knowledge gaps, through a competitive RFP process

Goal 7: Environmental monitoring information is centrally accessible online through an information Management system

Key Objectives:

Establish a fully functional information management system that is integrated with NGMP

Key Milestones:

2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
• Finalize the NWT Monitoring Portal and populate portal with monitoring information	• Manage CIMP website / portal • Design IMS, including concept, data standards, technological infrastructure, procedural and technological approaches /	• Design IMS, including concept, data standards, technological infrastructure, procedural and technological approaches /	• Pilot joint IMS with regional support staff and infrastructure	• Implement IMS, train all clients and users, and establish data sharing connections with all key partners

	methodology, implementation plan, migration plan for existing systems, budget for life-cycle	methodology, implementation plan, migration plan for existing systems, budget for life-cycle		

Goal 8: Key information on environmental monitoring is reported annually and contributes to the quality and timeliness of management decisions

Key Objectives:

- Develop a communications and outreach plan, including a framework for periodic reporting
- Produce annual reports (e.g. Summary of Knowledge (SoK) report, program reports)
- Coordinate and develop a comprehensive State of the Environment (SoE) report every 5 years
- Manage and administer the NWT Environmental Audit every 5 years

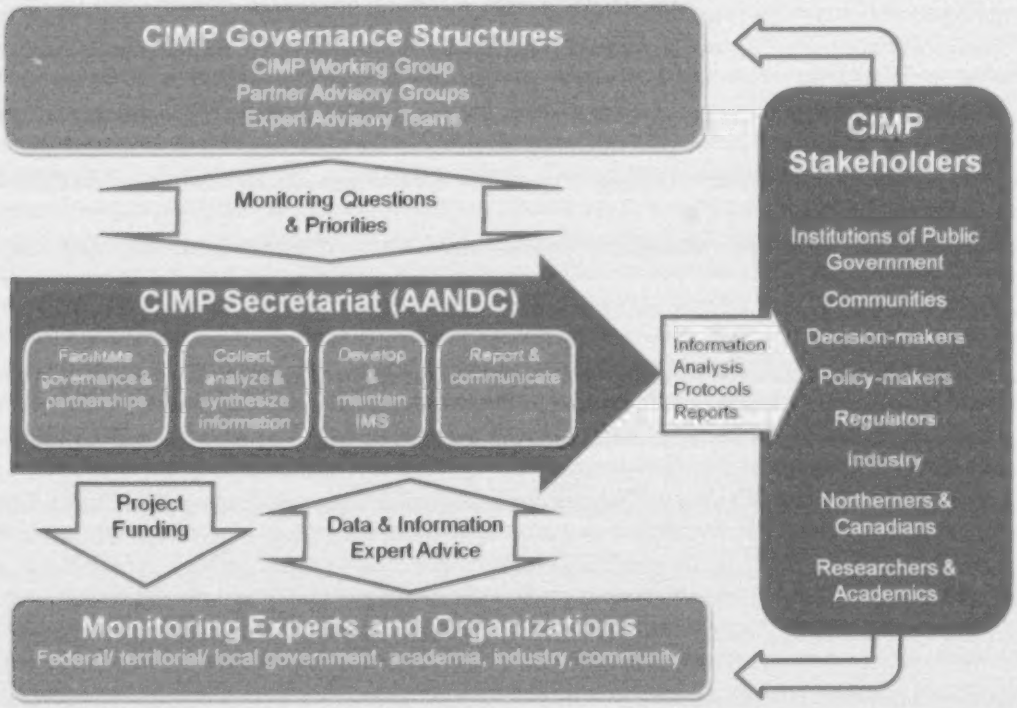
Key Milestones:

2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
• Production of 2010 NWT Environmental Audit & Status of Environment Report	• Develop plan in collaboration with NGMP • Revise "Summary of Knowledge" report format • Produce an annual CIMP report documenting program activities • Develop response to Audit recommendations and engage other organizations in their implementation	• Update SoK reports, based on known information/ current understanding • Produce annual CIMP report	• Update SoK reports • Produce annual CIMP report documenting • Prepare for Environmental Audit	• Update SoK reports • Produce the comprehensive SoE report for the NWT • Conduct the NWT Environmental Audit • Produce annual CIMP report, including a report on the delivery of the Five-Year strategic plan

Governance

The CIMP governance model and approach, presented in Figure 3, illustrates the program's role as a facilitator and coordinator of monitoring activities. Key monitoring questions and priorities are identified through the CIMP Working Group based on input from decision-makers and subject matter experts (Expert Advisory Teams and Partner Advisory Groups). The CIMP works with its network of monitoring experts and organizations to collect, analyze and report on cumulative impact monitoring information. This information is disseminated to stakeholders through the CIMP Secretariat, website and information management system.

Figure 3: Overview of the CIMP Governance Model and Approach



The key governance elements of the CIMP are:

CIMP Working Group

The CIMP is governed by a Working Group that is comprised of members of regional Aboriginal, federal and territorial government representatives including the Government of Canada (represented by the AANDC NWT Regional Office), the Government of the Northwest Territories (represented by Environment and Natural Resources), Gwich'in Tribal Council, Tlicho Government, Inuvialuit Game Council, NWT Metis Nation, and the North Slave Metis Alliance.

Observers include the Sahtu Secretariat Incorporated, Dehcho First Nations, Akaitcho Territory Government, Environment Canada, Department of Fisheries

and Oceans, Parks Canada and the Mackenzie Valley Environmental Impact Review Board.

The Working Group provides high-level oversight for the CIMP and determines monitoring questions and priorities collaboratively with other stakeholders. It is envisioned that each Working Group member will represent and consult with its broader constituency on key decisions. For example, AANDC will establish and lead a Federal Advisory Committee in order to coordinate the input of federal government departments into the Working Group.

Partner Advisory Groups

Partner Advisory Groups will be established as needed and will comprise non-Working Group member organizations, such as non-governmental organizations, research institutions, academia and industry. These partners will provide insight and advice regarding the needs and priorities of organizations and constituencies that are not directly represented on the Working Group.

CIMP Secretariat

The CIMP Secretariat will be comprised of nine AANDC staff who will support the Working Group, manage the governance and partnership structures, guide information collection and reporting functions as well as support and conduct cumulative impact monitoring projects.

Expert Advisory Teams

Expert Advisory Teams will be organized as needed based on themes, Valued Components, indicators, monitoring questions and/or geographic focus areas. They will be comprised of subject matter experts and may include members from traditional knowledge holders, government departments, academia, industry, community members, or independent experts. Teams would include individuals with direct experience with or due regard for traditional knowledge. These teams will include representatives from the diverse organizations who will be providing monitoring information to CIMP. The teams will be managed by CIMP staff or partners.

Stakeholder Engagement and Collaboration

The development and maintenance of meaningful partnerships is critical to the success of the CIMP. Key collaborators and stakeholders include:

- Co-management and regulatory bodies (e.g., Renewable resource boards in the Gwich'in, Sahtu, and Tłı̨chǫ regions, Environmental Impact Screening Committee, etc.)
- Aboriginal governments;
- Land and resource management and advisory organizations (e.g., Land Use Planning Boards, Land and Water Boards, Mackenzie River Basin Board, etc.);
- Federal government departments;
- Government of the Northwest Territories departments;
- Industry (e.g., mining, oil and gas, etc.);
- NWT communities;
- Environmental Non-Government Organizations (e.g., Canadian Arctic Resources Committee, Ecology North, Canadian Parks and Wilderness Society, World Wildlife Fund);
- Academic organizations (e.g., Universities and colleges); and,
- Other monitoring programs in the NWT, in neighbouring jurisdictions (e.g. Nunavut General Monitoring Plan, Alberta Forest Biodiversity Monitoring Program) and internationally (e.g., Arctic Council, Conservation of Arctic Flora and Fauna, Arctic Monitoring and Assessment Program).

The CIMP will formalize key collaborative relationships with other partners and organizations through Memorandums of Understanding (MOUs). Many of these will be joint MOUs with the NGMP where partners are common to both regions. As the CIMP will have limited funding to support these activities, partners are encouraged to align and optimize their monitoring activities to their existing organizational mandates, and ultimately to the broader cumulative impacts monitoring mandate of the CIMP. Areas of partner collaboration will include, but not be limited to those highlighted in the table below.

Table 2: Areas of Collaboration

Area of Collaboration	CIMP Secretariat Role (AANDC)	Role of Monitoring Collaborators
Governance Structures	Establish and manage the governance and partnership structures. Coordinate and present Government of Canada positions on governance structures.	Participate in meetings and planning cycles and provide input and advice on strategic plans and other documents.
Identification of monitoring questions and priorities	Facilitate the identification of monitoring questions and priorities through workshops, questionnaires, meetings and information provision. Produce a Monitoring Blueprint that summarizes priorities and questions.	Participate in activities (e.g. workshops, meetings) to help identify key NWT monitoring questions, priorities and knowledge and capacity gaps.

Area of Collaboration	CIMP Secretariat Role (AANDC)	Role of Monitoring Collaborators
Monitoring protocols for data collection, analysis and reporting	Foster the identification and/or development of NWT wide compatible and standardized approaches to collecting, analyzing, and reporting on monitoring information.	Policy and technical staff participate in the identification, development, review and revision of monitoring protocols through online and in-person meetings. Commit to using the protocols in monitoring work (e.g., through internal policy and/or prescribing license conditions).
Coordination and implementation of monitoring activities	Coordinate and guide the design and implementation of monitoring programs to meet identified priorities.	Commit to align and coordinate monitoring priorities and activities with the shared priorities and questions of CIMP.
Capacity building	Support the capacity development of partners in pursuit of supporting the CIMP's mandate.	Champion the CIMP and provide support and ongoing capacity for the program to become operational within and across partner organizations.
Quality and accessibility of information	Design and maintain a centralized monitoring information management system that will link data sources and facilitate access to monitoring information.	Commit to i) adhering to shared and common data quality standards and protocols, ii) publishing information (data, reports, etc.) in an accessible and compatible format, and iii) making information available through the CIMP information management system.
Reports and publications	Report monitoring information to decision-makers and community members through Annual Summary of Knowledge and 5-Year State of the Environment Reports, as well as other documents (e.g., technical reports, newsletters).	Contribute to CIMP's Annual Summary of Knowledge and 5-Year State of the Environment Reports as subject matter experts, authors and/or technical reviewers. Contribute to and/or produce other relevant reports and documents.
Annual Request for Proposals	Direct, manage and administer the annual Request For Proposal process to fund monitoring activities that address key monitoring priorities and questions.	Support administration of RFP process (e.g. review of proposals). Apply for funding in partnership with communities to undertake monitoring initiatives that will contribute to the CIMP's objectives. Review monitoring project reports to ensure quality of data and methods.

Sustaining Environmental Monitoring in the NWT

The CIMP has a broad mandate for territory-wide monitoring of a wide range of Valued Components involving diverse community, industry, government and other partners. The following are key considerations for managing expectations and sustaining the success of the CIMP:

- **The CIMP's key role is to improve the coordination, alignment and accessibility of environmental monitoring activities.** AANDC is responsible for managing the program, but cannot directly conduct or fund all relevant comprehensive long-term monitoring activities itself.
- **The success of the CIMP is dependent on collaboration.** Communities, the federal government, territorial government and industry all have mandates and/or interest in environmental monitoring; the program is dependent on their active collaboration to collect, analyze and disseminate information. Effective, mutually beneficial partnerships are important given the high stakeholder expectations for the program, and the limited resources available to monitoring collaborators.
- **The CIMP has funding for specific, targeted monitoring activities.** Funding will be allocated by AANDC based on the recommendations of the CIMP Working Group and will focus on projects that address key monitoring questions and priorities and meet funding eligibility criteria.
- **The CIMP is an information provider, not a decision-maker.** The use of data and information reported through the program for decision-making purposes will be determined by the end-users. The CIMP will strive to maximize its relevance by engaging regularly with decision-makers and providing information that meets their needs.
- **CIMP will identify a subset of key monitoring questions, valued component areas, and geographic regions to focus on for these initial five years.** The program will also establish the structures, partnerships and systems needed for program management. Following this approach, it is anticipated that the subsequent five years of program development will focus on scaling up activities to encompass the program's full mandate.

The following strategies have been identified to ensure the CIMP's success:

- Proactively engaging collaborators to formalize relationships and integrate program considerations into business planning and operations;
- Assessing stakeholder and decision-maker needs early in the process;
- Focusing on priority questions, Valued Components and regions ("hotspots") for the first five years; and,
- Coordinating program activities to leverage resources and minimize demands on collaborators.

In the long run, the success of the program will depend on the ongoing engagement and support of collaborators, the effective management of internal and external expectations and the delivery of accessible, credible data and analysis to inform decision-making. The CIMP welcomes interested parties and stakeholders to join them in their efforts to support environmental monitoring and the sustainable development of the NWT.

Appendix A: Valued Components

CIMP Valued Components

- Caribou
- Moose
- Land Mammals
- Marine Life
- Birds (land and marine)
- Water and Sediment Quality
- Water Quantity
- Air Quality
- Snow, Ground Ice, Permafrost
- Fish Habitat, Population, Harvest
- Fish Quality
- Vegetation
- Climate and Climate Change
- Human Health and Community Wellness

Appendix B: Program History

The CIMP received five years of dedicated program funding in the 2010 Federal Budget but has been in operation for the past 10 years. Since 1999, the program has made notable progress, including supporting monitoring projects, establishing a collaborative multi-stakeholder governance structure and developing a number of key documents, guidelines and models for program management and operations. The program has made notable progress in a number of areas related to environmental monitoring and program management.

Valued Components (VCs) Monitoring

The CIMP successfully coordinated the NWT Environmental Audit in 2005 and in 2010. The 2005 audit generated significant findings related to land use planning; regulation, environmental impact assessment, traditional knowledge, and the cumulative impact monitoring program itself. It identified a number of cross-cutting themes and provided 50 recommendations to AANDC and other agencies to act on. The two recommendations related directly to the CIMP were (i) the need for a long-term stable funding source and (ii) the need to develop and implement a detailed, operational work plan which clearly identifies and addresses monitoring needs. Actions to address those CIMP-specific recommendations are currently underway. The CIMP is further involved in activities responding to cross-cutting themes and shared initiatives.

As of March 31, 2011, CIMP had supported and implemented more than 220 community monitoring projects and small-scale pilot projects that have yielded valuable baseline information while building community monitoring capacity. The CIMP promotes partnership approaches and the majority of the funded projects represent collaborative efforts between Aboriginal partners, governments and academia.

Program Management

The CIMP has paved the path to a broad acceptance of the need for cumulative impact monitoring in the NWT. This has been accomplished through communication and outreach activities conducted by the program.

The CIMP has also been successful at establishing a governance structure that includes a multi-party Working Group and a series of Valued Component Expert Advisory Committees. This collaborative, multi-stakeholder structure has been successfully managed and maintained for numerous years despite the lack of secure program funding and has generated significant commitment and goodwill from all of the key stakeholder groups. With the support of the CIMP secretariat within AANDC, the Working Group has been focused on the high-level design and guidance of the NWT CIMP and Environmental Audit, and on regional and community consultations related to this work.

Considerable efforts have been invested into program planning over the years including:

- The development of a discussion paper on the NWT Cumulative Effects Assessment and Management Framework (CEAMF, now called the NWT Environmental Stewardship Framework), focussing on the state of environmental management in the NWT and identifying gaps and overlaps;
- An information management workshop in support of the NWT Cumulative Effects Assessment & Management Framework and the Mackenzie Valley Cumulative Impact Monitoring Program;

- The development of a "Draft Blueprint for implementing the cumulative effects assessment and management strategy and framework in the NWT and its regions";
- A study on the integration of traditional knowledge into the cumulative effects assessment and management strategy and framework;
- Starting in 2004, annual revisions to the "Blueprint for implementing the cumulative effects assessment and management strategy and framework in the NWT and its regions";
- The development of a "Plain language summary" of the Blueprint; and
- A "Thresholds: From Theory to Practice" Workshop. The workshop objectives were to provide an overview of threshold development and implementation, to share experience with the development and application of thresholds for use in environmental management in the NWT and in other jurisdictions, and to discuss the lessons learned from experience to date, implications for moving forward with the use of thresholds in the NWT, and possible 'next steps' in that regard.